

A SIGNALING QUALITY OF SERVICE CLASS FOR USE IN MULTIMEDIA COMMUNICATATIONS

CROSS-REFERENCE TO RELATED APPLICATIONS

- This application is related to commonly-assigned U.S. Patent
- 5 Application Serial No. 09/768,956, entitled "RSVP Handling in 3G Networks," filed on January 24, 2001; U.S. Patent Application Serial No. 09/861,817, entitled "Application Influenced Policy," filed on May 21, 2001; U.S. Patent Application Serial No. 09/985,573, entitled "Media Binding to Coordinating Quality of Service Requirements for Media Flows in a Multimedia Session with IP Bearer Resources,"
- 10 filed November 5, 2001; and U.S. Patent Application Serial No. 09/985,633, entitled "Method and Apparatus for Coordinating Charges for Services Provided in a Multimedia Session," filed November 5, 2001; and U.S. Patent Application Serial No. 09/985,631, entitled "Method and Apparatus for Coordinating Quality of Service Requirements for Media Flows in a Multimedia System With IP Bearer
- 15 Resources," filed November 5, 2001; and U.S. Patent Application Serial No. 10/038,770, entitled "Method and Apparatus for Coordinating End-to-End Quality of Service Requirements for Media Flows in a Multimedia Session," filed January 8, 2002, the disclosures of which are incorporated herein by reference.

REFERENCE TO PRIORITY APPLICATIONS

- 20 This application claims priority from and incorporates by reference the following commonly-assigned provisional patent applications: 60/267,737 entitled "Authorization Token in PDP Context Activation/Modification in Bearer Establishment for SIP Call Setup," filed February 9, 2001; 60/269,572 entitled "Binding a Signaling Bearer for Use With an IP Multimedia Subsystem," filed
- 25 February 16, 2001; 60/269,573 entitled "QoS Characteristics for a UMTS Bearer

Appropriate for IP Signaling," filed February 16, 2001; 60/269,789 entitled "Architecture for Packet Data Protocol Context Suitable for Signaling," filed February 16, 2001; 60/273,678 entitled "SDP Support for QoS Based SIP Sessions," filed March 6, 2001; 60/275,354 entitled "Enhancement of Authorization Token for 5 RSVP Interworking," filed March 13, 2001; and 60/324,523, entitled "Use of GPRS APN in IMS/Ipv6 Context," filed on September 26, 2001.

FIELD OF THE INVENTION

The present invention generally relates to Internet Protocol (IP) networks, and more specifically, to establishing Quality of Service (QoS) for a 10 signaling bearer used to establish a multimedia session across an IP access network.

BACKGROUND

IP networks were originally designed to carry "best effort" traffic where the network makes a "best attempt" to deliver a user packet, but does not guarantee that a user packet will arrive at the destination. Because of the market 15 success of IP networks, there is a clear requirement for mechanisms that allow IP networks to support various types of applications. Some of these applications have Quality of Service (QoS) requirements other than "best effort" service. Examples of such applications include various real time applications (IP Telephony, video conferencing), streaming services (audio or video), or high quality data services 20 (browsing with bounded download delays). Recognizing these QoS requirements, the Internet Engineering Task Force (IETF), which is the main standards body for IP networking, standardized a set of protocols and mechanisms that enable IP network operators to build QoS-enabled IP networks.